

-2-

**Amendment to the Specification:**

On page 1, after the title and before line 1, please insert the heading:

**Background**

On page 1, please amend the paragraph spanning lines 4-12 as follows:

The MR elastography (MR = Magnetic Resonance) method which is disclosed in United States patent application ~~09/743659 (PHD 99 152) 6,486,669~~ utilizes the fact that the phase in an MR image of the object changes under the influence of mechanical oscillations acting on the object. The extent of such a change is dependent on the excursion of the tissue under the influence of the mechanical oscillations. Information concerning given mechanical parameters of the tissue can thus be derived from MR phase images, that is, images reproducing the phase of the nuclear magnetization; for example, such a parameters relates to the elasticity. In ultrasound elastography even direct measurement of the excursion is possible.

On page 1, before the paragraph beginning on line 17, please insert the heading:

**Summary**

On page 2, please replace the paragraph spanning lines 32-33 with the following heading and paragraph as follows:

~~The invention will be described in detail hereinafter with reference to the drawings. Therein:~~

**Brief Description of the Drawings**

The invention may take form in various components and arrangements of components, and in various steps and arrangements of steps. The drawings are only

-3-

for purposes of illustrating the preferred embodiments and are not to be construed as limiting the invention.

On page 3, before the paragraph beginning on line 7, please insert the heading:

**Detailed Description**

On page 3, please amend the paragraph spanning lines 16-19 as follows:

Therein,  $[[L0]]$   $L_0$  is the extent of the non-compressed sample and  $L$  the extent of the compressed sample. As has already been stated, in the case of samples of a biological tissue the deformation  $\epsilon$  is not proportional to the pressure  $P$ , because the elasticity increases as the deformation increases. This increase can be suitably approximated by the equation

On page 3, please amend the paragraph spanning lines 23-25 as follows:

Therein,  $[[E0]]$   $E_0$  is the initial elasticity (that is, the elasticity without compression) and the exponent  $\alpha$  is a measure of the non-linearity. For  $\alpha = 0$  a linear relationship exists between  $P$  and  $\epsilon$ . The larger  $\alpha$ , the more non-linear this relationship will be.

On page 9, please amend the paragraph spanning lines 14-21 as follows:

Because the non-linearity per se generally does not allow an opinion to be expressed as regards the benign or malignant nature of a lesion, as described with reference to Fig. 1, in the step 205 there is furthermore generated an image which represents the spatial distribution of the modulus of elasticity in the examination zone. The measuring values required for this purpose are available already after the acquisition in conformity with Fig. 3. The calculation of the modulus of elasticity from these values is described in detail in the previously mentioned United States

-4-

patent application ~~09/743659 (PHD 99-152)~~ 6,486,669 which is hereby specifically referred to.

On page 9, after the last paragraph ending on line 30, please insert the following paragraph:

The invention has been described with reference to the preferred embodiments. Modifications and alterations may occur to others upon reading and understanding the preceding detailed description. It is intended that the invention be constructed as including all such modifications and alterations insofar as they come within the scope of the appended claims or the equivalents thereof.